

Parthenogenesis in Amblypygi (Arachnida)

Partenogénesis en Amblypygi (Arachnida)

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Parthenogenesis is a rather common phenomenon among mites (PALMER AND NORTON, 1991), but it is very rare in scorpions (LOURENÇO AND CUELLAR, 1994), spiders (MONTEROSO, 1947; DEELEMANN-REINHOLD, 1986; LAKE, 1986), schizomids (REDDELL AND COKENDOLPHER, 1995), and opilionids (TSURUSAKI, 1986). Hitherto, parthenogenesis had not been known within whip spiders (Amblypygi).

Charinus acosta (Quintero, 1983) (Amblypygi: Charinidae) is the most widespread charinid species from Cuba (ARMAS AND PÉREZ GONZALEZ, 1997), but males have never been collected.

On March 24, 2000, L. F. Armas and A. Ávila Calvo collected ten females and juveniles of *C. acosta*, in a small wooded area at the Institute of Ecology and Systematics (IES), Capdevila, Boyeros, Ciudad de La Habana province (23° 01' 58" N, 82° 22' 43" W). The whip spiders were found in the soil, under rubbishes covered with litter. This charinid population seems to be introduced by man (ARMAS AND PÉREZ GONZALEZ, 1997).

Each of the specimens was individually kept in a jar containing soil and debris. As food were supplied larvae, workers, and winged termites (*Nasutitermes rippertii*).

One of the adult females moulted on April 25, 2000 (exuvia carapace median length: 1,55 mm). It laid eggs, without mating, on May 26 (31 days after moulted), and the eggs produced prenympths on July 28; the first moult occurred seven days later.

A second adult female moulted on May 23 (exuvia carapace median length: 1,95 mm). It was ovigerous, without mating, on June 28 (36 days after moulted). On August 30, the protonymphs were already active on the substrate.

One of the collected immature specimens moulted on April 29, 2000 (exuvia carapace median length = 1,30 mm), and later on May 30 (exuvia carapace length = 1,50 mm). It laid eggs, without mating, on July 4 (35 days after last moulting), but the egg sac was dropped about 17 days later. Nevertheless, on August 30 this female laid eggs again.

Since: (1) males are unknown in this species (we have examined more than 60 females from several localities), and (2) during moulting the female amblypygid spiders lose all stored spermatozoa (WEYGOLDT, 1999:104), our observations confirm that *C. acosta* is an obligate parthenogenetic species.

According with P. WEYGOLDT (in litt., June 28, 2000), "it was assumed that *Charinus ioanniticus* (Kritscher, 1959) may reproduce parthenogenetically, because only females (about 20) were found at the type locality in Greece, but recently Kovarik found the same species in Turkey, and found males. Perhaps only the Greek population is without males." For this reason, *C. acosta* may be considered as the first case of parthenogenesis demonstrated among Amblypygi.

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